UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,129	03/11/2004	Yasuyuki Nomizu	250257US2	4665

22850   7590   09/18/2007
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EXAMINER
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ART UNIT	PAPER NUMBER
2624	

NOTIFICATION DATE	DELIVERY MODE
09/18/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/797,129	NOMIZU, YASUYUKI
	Examiner	Art Unit	
	Yubin Hung	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-29_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-29_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _11 March 2004_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _7/28/04_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In addition, the USPTO "Interim Guidelines for Examination of Patent

Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22

November 2005), ANNEX IV, partly reads as follows:

First paragraph

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structure and computer programs which impart functionality when employed as a computer component. ...

Second paragraph

> Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. ...

Section (a), second paragraph, beginning at line 7

> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowery, 32 F.3d at 1583-84, 32 USPQ2d at 1035. ...

2.   Claims 12-15 are rejected under 35 U.S.C. 101 because they are directed to

computer readable program, which are non-statutory subject matter as provided above

(especially the second paragraph).

[Note: It is recommended that the following amendment be made:

    (1) change the preamble of claim 12 to read "A computer-readable medium

        encoded with a computer program causing a computer to perform"

    (2) for claims 13-15, change "The computer readable program" to "The computer-

        readable medium"

    (3) cancel claims 16-19]

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

5.   Regarding claim 1, and similarly claims 12, 16, 20 and 24 (and inherently claims

2-6, 13-15, 17-19, 21-23 and 25-29), the meanings of "the image itself obtained from

decoding same code" in lines 13-14 and "the image obtained therefrom" in line 18 are

vague therefore the mete and bound of the claim cannot be ascertained. [Note for

examination purpose they will be interpreted as " the image obtained from the reversible

code and the image obtained from the non-reversible code" and one of (1) the

reversible code, (2) the non-reversible code, (3) the image obtained from the reversible

code and (4) the image obtained from the non-reversible code is selected and

transmitted.]

6.   Claim 6 recites the limitation "the predetermined communication network" in lines

3-4. There is insufficient antecedent basis for this limitation in the claim.

7.   Claim 7, and inherently claims 8-11, recites the limitation "the code itself" in the

last line. Since two kinds of code (reversible and non-reversible) are recited in the

claim, it is not clear which one is being referred; therefore the mete and bound of the

claim cannot be ascertained.

8.   Claim 11 recites the limitation "image forming apparatus" in line 1. There is

insufficient antecedent basis for this limitation in the claim. [Note: Obviously claim 11

should have been dependent from claim 7 and will be interpreted as such for

examination purpose.]

Claim Rejections - 35 USC § 103

9.   The·following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1, 2, 7, 10-12, 15, 16, 19, 20 and 23-25 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hatae et al. (US 2003/0193948), and further

in view of Fukuhara et al. (US 7,127,111) and Long (US 5,768,424).

11.   Regarding claim 1, and similarly claims 20 and 24, Hatae discloses

- a storing part
  [Fig. 2: refs. 38 & 40; P. 4, paragraph 95, lines 16-20]
- a transmission part transmitting the either reversible or non-reversible code, or the image itself obtained from decoding the same code, to a predetermined transmission destination
  [Fig. 2, ref. 44; P. 4, paragraph 95, lines 23-25; P. 5, paragraph 112, lines 1-4. Note that selected data (by ref. 44, see below) is transmitted]
- a selecting part selectively performing transmission of the non-reversible code or the reversible code, or the image obtained therefrom
  [Fig. 2, ref. 44; P. 4, paragraph 95, lines 20-21; P. 5, paragraph 112, lines 1-4. Note that the compressed image (i.e., code) from ref. 38 can be either reversible or non-reversible since both types of compression techniques are known and used]

Hatae does not expressly disclose

- (that the stored code) is obtained by reversibly compressing and coding an image according to a predetermined coding way having a hierarchy configuration from a reversible part through a non-reversible part
- an altering part generating, from the code, a non-reversible code

However, Fukuhara discloses generating code in the manner recited above using JPEG

2000 [Fig. 1; Col. 4, line 26-Col. 7, line 56] and Long further discloses generating non-

reversible code from the code [Fig. 7, refs. 23 & 24 (generating non-reversible code);

Fig. 10 (process of Fig. 7, ref. 24); Col. 4, lines 25-55].

It would therefore have been obvious to one of ordinary skill in the art to modify Hatae

with the teachings of Fukuhara and Long as recited above to obtain the invention as

specified in claim 1. The reasons for doing so would have been improved coding

efficiency (Fukuhara: Col. 1, lines 36-41), as well as to meet the minimum timing

requirements of the output device such as printers or displays (Long: Abstract).

12.   Regarding claim 2, and similarly claims 10, 15, 19, 23 and 25, note that Fukuhara

discloses the use of JPEG 2000 [Fig. 1].

13.   Regarding claim 7, and similarly claims 12 and 16, per the analysis of claim 1,

the combined invention of Hatae, Fukuhara and Long discloses

- a coding part reversibly compressing and coding an image according to a
  predetermined coding way having a hierarchy configuration from a
  reversible part through a non-reversible part
  [In addition to the analysis of claim 1, note that Fig. 2, ref. 36 of
  Hatae is a coding part]
- a storing part storing the code
- an altering part generating a non-reversible code from the code stored
  a transmission part transmitting the either reversible or non-
  reversible code, or the data of image obtained from decoding the code
  by said decoding part, to a predetermined transmission destination
- a selecting part selectively performing transmission of the image data
  in the form of non-reversible code or in the form of reversible code
  thus generated, or the code itself

In addition, Hatae further discloses

- a decoding part decoding the code
  [Fig. 2, ref. 36]
- a printer engine performing image formation on a medium based on the
  decoded image
  [Fig. 2, ref. 60]

14.   Regarding claim 11, note that Hatae further discloses an image input device [Fig.

2, ref. 30; P. 5, paragraph 106] that reads data to be compressed by the coding part

[Fig. 2, ref. 36].

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15.   Claims 3-6, 8, 9, 13, 14, 17, 18, 21, 22 and 26-29 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hatae et al. (US 2003/0193948), Fukuhara et

al. (US 7,127,111) and Long (US 5,768,424) as applied to claims 1, 2, 7, 10-12, 15, 16,

19, 20 and 23-25, and further in view of Delean (US 5,907,640).

16.   Regarding claim 3, and similarly claim 26, the combined invention of Hatae,

Fukuhara and Long discloses all limitations of its parent, claim 1 but not the following:

- said selecting part applies the image data in the form of non-
  reversible code when the data is displayed with a use of the code and
  therewith operation of editing or modifying is performed on the image
  data, while it applies the image data in the form of reversible code
  when it is transmitted to external apparatus via the communication
  network

However, Delean teaches selecting lossily (i.e., non-reversibly) compressed for

displaying and editing purpose [Fig. 4, refs. 204–208; Col. 7, lines 12-23; Col. 9, lines

54-56] and selecting image data that is not non-reversibly compressed for transmission

to an external apparatus [Fig. 4, refs. 204, 214, 212 & 216; Col. 7, lines 48-59], as well

as using lossless (i.e., reversible) compression [Col. 9, lines 34-337 & 43-45] and

obtaining the highest quality image for the final output [Col. 9, lines 56-59] (these teach

using reversible compression for the output file 216 since both high image quality and

smaller file size are accomplished this way).

It would therefore have been obvious to one of ordinary skill in the art to modify the

combined invention of Hatae, Fukuhara and Long with the teachings of Delean as

recited above to obtain the invention as specified in claim 3. The reasons for doing so

would have been to reduce file size for more efficient network access and yet allows the

high image quality to be maintained in the final output, as Delean indicates in Col. 9,

lines 35-37 & 56-62.

17.   Regarding claim 4, and similarly claim 27, note that Delean further discloses

- the selecting part transmits the reversible code having information
  indicating the contents of operation of editing or modifying the image
  data attached thereto
  [Fig. 4, refs, 212 & 216; Col. 7, lines 48-59]

18.   Regarding claim 5, and similarly claim 28, Delean further discloses

- a determining part for determining whether the contents of operation of
  editing or modifying for the image data are actually reflected on the
  image data in the form of reversible code or the original image by the
  own apparatus or by another externally apparatus
  [Fig. 4, ref. 212; Col. 3, lines 33-38Col. 6, lines 48-54 and Col. 7,
  lines 55-58. Note that where the output image 216 is sent so that the
  editing operations can be executed (by a desk publishing system, either
  self or external) inherently has to be determined]
- the selecting part, when a determination is made by said determining
  part that the contents of operation of editing or modifying for the
  image data are actually reflected on the image data in the form of
  reversible code or the original image by another external apparatus,
  transmits the reversible code having information indicating the
  contents of operation of editing or modifying the image data attached
  thereto
  [Fig. 4, refs, 212 & 216; Col. 7, lines 48-59; also per the analysis of
  claim 3 regarding the use of reversible code. Note that the output
  image 216 contains editing/modifying information]

19.   Regarding claim 6, and similarly claim 29, Delean further discloses performing

processing according to the received information indicating editing/modifying operations

[Fig. 4, refs. 212 & 216; Col. 7, lines 55-58. Note that an external desk publishing

system, considered a server, will carry out the editing/modifying operations].

20.   Regarding claim 8, and similarly claims 13, 17 and 21, Delean further discloses

- transmits the image data in the form of reversible code when it is
  provided to the printer engine
  [Fig. 3, ref. 110; Col. 5, lines 56-60; Col. 6, lines 10-12; also per
  the analysis of claim 3 regarding reversible code]

21.   Regarding claim 9, and similarly claims 14, 18 and 22, Delean discloses sending

non-reversible code to display [Fig. 3, ref. 108; Col. 3, lines 25-29; Col. 9, lines 53-55

(sending non-reversible code)].

Conclusion and Contact Information

22.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

- Yokomizo et al. (US 2002/0067500) – discloses selecting high-resolution image

  for printing and low-resolution image for display

- Goodman et al. (US 2003/0182402) – discloses selecting full-resolution image for

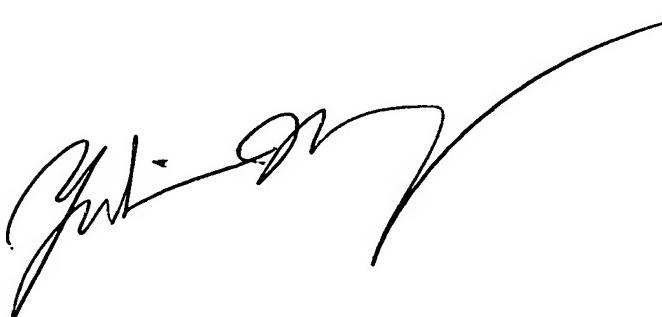 printing and low-resolution image for display

- Ueda et al. (US 2002/0057454) – discloses performing image processing without .complete decompression

- Peli (US 6,611,618) – discloses embedding image enhancement operations with the image data and selectively applying the operations at the receiving end

23.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yubin Hung
Patent Examiner
Art Unit 2624

September 11, 2007